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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,591	01/03/2001	Jesse A. Jurrens		1866
40158	58 7590 04/06/2006		EXAMINER	
WOODS FULLER SHULTZ & SMITH P.C. ATTN: JEFFREY A. PROEHL			RODRIGUE	Z, PAMELA
P.O. BOX 50			ART UNIT	PAPER NUMBER
SIOUX FAL	LS, SD 57117		3683	

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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)		
Office Action Summary		09/753,591	JURRENS, JESSE A.		
		Examiner	Art Unit		
		Pam Rodriguez	3683		
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
2a)⊠ 3)□	Responsive to communication(s) filed on <u>02 Fe</u> This action is FINAL . 2b) This Since this application is in condition for allowar closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro			
Dispositi	on of Claims				
5)□ 6)⊠ 7)□ 8)□ Applicati	Claim(s) 3,4,8-31 and 38-43 is/are pending in the short claim(s) is/are withdraw claim(s) is/are allowed. Claim(s) 3,4,8-31 and 38-43 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or on Papers	wn from consideration. r election requirement.			
10)	The specification is objected to by the Examine The drawing(s) filed on is/are: a) accomplished any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Example 2.	epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).		
Priority u	ınder 35 U.S.C. § 119				
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
2) Notic 3) Inform	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:			

DETAILED ACTION

1. The Amendment filed February 2, 2006 has been received and considered.

Drawings

- 2. Applicant has stated with his amendment that a new Figure 6 drawing has been filed concurrently therewith. However, the examiner can find no such drawing. Since no new drawing has been submitted, the previous drawing objections have been maintained and are repeated here.
- 3. The proposed drawing correction filed on November 21st, 2001 has been disapproved because they introduce new matter into the drawings. 37 CFR 1:121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of this Figure 6 and all the particulars of the swing arm structure. The substitute sheets for Figures 1-5 however have been entered.
- 4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the swing arm with its pairs of arms, wheel mounts, connectors, and upper, lower, and intermediate transverse cross members must all be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Specification

5. Applicant's new amendments to the specification filed February 2, 2006 have not been entered at this time, since new Figure 6, which applicant references these changes to, has not been found. The examiner will reconsider these amendments when the new Figure is received.

Claim Objections

- 6. Claim 4 is objected to because of the following informalities: in line 12 of the claim the word "collective" should read –collectively--. Appropriate correction is required.
- 7. Applicant should also note that Claim 9 originally depended from Claim 8. In applicant's claim status identifier for Claim 9 in the February 2, 2006 amendment, applicant has identified this claim as being "Previously Presented". Thus, the examiner wishes to note that the claim dependency for Claim 9 has been treated as originally presented, i.e., dependent from Claim 8, and not from Claim 3 as written in the February 2, 2006 amendment.
- 8. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 32-37 been renumbered claims 38-43.NOTE: Claims 32-37 in the previous amendment are not present in the amendment filed February 2, 2006. However, new Claims 32-37, filed with the February 2, 2006 amendment, have now been inserted in their place. Applicant has made no indication of such in his February 2, 2006 filed amendment. In a response to this office action, the proper claim status identifiers should be placed for old Claims 32-37 (i.e., canceled) and new Claims 32-37 should be renumbered as Claims 38-43.

Claim Rejections - 35 USC § 112

- 9. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 10. Claims 30 and 38-43 (numbered Claims 32-37 in applicant's February 2, 2006 amendment) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites the limitation "the pair" in line 2. There is insufficient antecedent basis for this limitation in the claim.

In line 13 of Claim 38 (numbered Claim 32 in applicant's February 2, 2006 amendment), the term "a second end" is a duplicate recitation of this same term recited in line 12 of the claim.

In line 3 of Claim 43 (numbered Claim 37 in applicant's February 2, 2006 amendment), the term "the piston" is indefinite. It is unclear which piston that applicant

is referring to here, either the piston claimed in Claim 38 (numbered Claim 32 in applicant's February 2, 2006 amendment) or the hydraulic piston recited in this claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 12. Claims 38-43 (numbered Claims 32-37 in the amendment filed February 2, 2006) are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,129,634 to Harris.

Regarding Claim 38 (numbered Claim 32 in the February 2, 2006 amendment), Harris discloses a suspension device (see Figure 1) capable of connecting to a frame of a vehicle and a swing arm on which a wheel of the vehicle is mounted having all the features of the instant invention including: a housing 40 defining an interior, a shock absorber 20/30/14 mounted on the housing (see Figure 1), the shock absorber including a rod 20 movably mounted on the housing 40 (at least through its connection to element 30 and element 26) such that at least a portion of the rod 20 extends into the interior of the housing and through the housing (see Figure 1 and the lower portion of rod 20 which extends through cylinder 18 and thus also through housing portion 40), a piston 14 positioned in the interior of the housing 40 and being mounted on the rod of the shock absorber to move with the rod (note that the piston is readable as being mounted

on rod 20 at least through element 18, see also Figure 5 of the reference), an air bag 30 positioned within the interior of the housing 40 (see Figure 1), the air bag being constructed of an elastomeric material, the air bag 30 having a first end 28 mounted on the housing in the interior of the housing at element 32 and a second end 34 mounted on the piston 14 such that the piston, the housing, and the air bag collectively define an air chamber within the housing (see Figure 1).

Regarding Claim 39 (numbered Claim 33 in the February 2, 2006 amendment), see ends 28 and 34.

Regarding Claim 40 (numbered Claim 34 in the February 2, 2006 amendment), see flange 32 and flange 34 and column 3 lines 55-58.

Regarding Claim 41 (numbered Claim 35 in the February 2, 2006 amendment), see portion 28 which receives a portion of an end cap 26 of the housing and portion 34 receiving piston 14.

Regarding Claim 42 (numbered Claim 36 in the February 2, 2006 amendment), see Figure 1.

Regarding Claim 43 (numbered Claim 37 in the February 2, 2006 amendment), see shock absorber 18 which inherently includes a hydraulic piston and a cylinder, at least a portion of the cylinder mounted in housing 40 and the piston would inherently be mounted on rod 20, wherein the rod is certainly capable of being configured to be mounted on one element of the frame or the swing arm and the cylinder is certainly capable of being mounted on the other of the frame or swing arm.

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Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,003,628 TO JURRENS ET AL in view of U.S. Patent NO. 3,752,270 TO VALDESPINO.

Regarding Claim 3, Jurrens et al disclose a suspension system for a motorcycle (see Figure 12) having most all the features of the instant invention including: a motorcycle main frame 14, a swing arm 16 pivotally mounted to the motorcycle main frame about a pivot axis 18, at least one air bag suspension system 10, the air bag suspension system forming a shock absorber which includes at least one air bag 54 constructed of an elastomeric material, the air bag is housed within a housing assembly 52' and is secured at one end to a piston (see Figure 12 and the piston of shock absorber 140) and at another end to an upper plate or end cap 116 of the housing assembly 52' (see Figure 12 and column 8 lines 48-57), and the shock absorber is attached at a forward end to a cross member plate 78 of the motorcycle main frame 14 and is pivotally attached at a rearward end to a lower transverse cross member 66 of the swing arm 16 (see Figure 7).

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston located *within the housing assembly*.

Valdespino is relied upon merely for his teachings of an air bag suspension system (see Figure 6) forming a shock absorber which includes at least one air bag 46, the air bag is housed within a housing assembly 41 and is secured at one end to a piston 50 located within the housing assembly and at an other end to an end cap 43 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Valdespino as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

15. Claims 4 and 8-31 (numbered Claims 32-37 in the amendment filed February 2, 2006) are rejected under 35 U.S.C. 103(a) as being unpatentable over *U.S. PATENT NO. 6,003,628 TO JURRENS ET AL IN VIEW OF U. S. PATENT NO. 5,129,634 to Harris*.

Regarding Claim 4, Jurrens et al is relied upon as applied to Claim 3 above.

However, again, Jurrens et al do not disclose that the piston is located within the housing assembly such that the piston, the end cap, and the air bag collectively define an air chamber within the housing for receiving and retaining air.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air bag is housed within a housing assembly 40 and is secured at one end to a piston 14 located within the housing assembly and at an other end to an end cap 26 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

Regarding Claim 8, Jurrens et al disclose that the air-bag suspension member includes air.

Regarding Claim 9, Jurrens et al disclose that the air included in the air-bag suspension member is pressurized (see column 6 lines 13-31).

Regarding Claim 10, Jurrens et al disclose that a degree of pressurization of the pressurized air in the air-bag suspension member 10 is adjustable (see column 6 lines 13-31).

Regarding Claim 11, Jurrens et al disclose that the adjustment of the degree of pressurization of the pressurized air in the air-bag suspension member alters ride height of the motorcycle (see column 6 lines 59-62).

Regarding Claim 12, Jurrens et al inherently disclose that the air-bag suspension member is characterized by a support spring force which is a function of compression stroke.

Regarding Claims 13 and 14, Jurrens et al., as modified, disclose most all the features of the instant invention as applied above except for the specifics of the support spring force being a progressive function of compression stroke or an exponential function of compression stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the support spring force is either a progressive function or an exponential function of compression stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is correlated to the compression stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 15, see column 6 lines 13-31 of Jurrens.

Regarding Claim 16, see column 6 lines 13-31 of Jurrens, where inherently this limitation would be true.

Regarding Claim 17, Jurrens et al disclose most all the features of the instant invention including: an air-bag suspension 10 for replacement of a stock coil spring

suspension in a soft tail type motorcycle characterized by a motorcycle main frame 14 with a cross member plate 78 and a swing arm 16, the swing arm 16 pivotably attached to the motorcycle frame 14 and having a transverse cross member 34, the stock coil spring suspension having a forward end attached to the cross member plate 78 and a rearward end pivotably attached to the transverse cross member 32/34 (see Figure 12). the air-bag suspension for replacement of a stock coil spring suspension comprising: at least one air-bag 54 constructed of elastomeric material, the air-bag 54 having a first end and a second end; a housing assembly 52' with an end cap 66, the housing assembly 52'enclosing the air-bag 54, and the first end of the air-bag 54 secured to a piston (see Figure 12 and the piston of shock absorber 140) and the second end of the air-bag secured to the end cap 66; and, a shock absorber 140, the shock absorber 140 having a forward end and a rearward end, the shock absorber attached to the housing assembly 52' and the shock absorber 140 attachable at the forward end to the cross member plate 78 of a motorcycle main frame and pivotably attachable at the rearward end to the lower transverse cross member 34 of the swing arm (see Figures 1-12).

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston located <u>within the housing assembly</u> such that the piston, the end cap, and the air bag collectively define an air chamber within the housing for receiving and retaining air.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air bag is housed within a housing assembly 40 and is secured at one end to a piston 14

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located within the housing assembly and at an other end to an end cap 26 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

Regarding Claim 18, Jurrens et al disclose that the motorcycle, exclusive of the air-bag suspension member, is a Harley Davidson SOFTAIL* motorcycle (see column 5 lines 35-58).

However, Jurrens et al., as modified, do not specifically disclose that the stock coil spring suspension is characterized by a spring force which is a linear function of shock stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the spring force is a linear function of shock stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is related to the shock stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 19, Jurrens et al., as modified, disclose most all the features of the instant invention as applied above except for the specifics of the spring force being a progressive function of shock stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the support spring force is a progressive function of shock stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is related to the shock stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 20, see Claim 8 above.

Regarding Claim 21, see Claim 9 above.

Regarding Claim 22, see Claim 10 above.

Regarding Claim 23, see Claim 11 above.

Regarding Claim 24, see Claim 12 above.

Regarding Claim 25, see Claim 13 below.

Regarding Claim 26, see Claim 14 below.

Regarding Claim 27, see Claim 15 below.

Regarding Claim 28, see Claim 16 below.

Regarding Claim 29, see Figure 7 of Jurrens et al.

Regarding Claim 30, see column 6 lines 13-31 of Jurrens et al.

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Regarding Claim 31, Jurrens et al discloses in a soft tail type motorcycle, replacing the stock coil spring suspension with an air bag suspension (see Claim 4 above), the air bag suspension including a housing with an interior.

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston movable within the housing assembly, an air bag positioned within the interior of the housing, the air bag being securely attached to an interior of the housing and to the piston to define an air chamber.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air bag is housed within a housing assembly 40 and is securely attached to an interior of the housing at 28 and 32 and to a piston 14 located within the housing assembly (see Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

Response to Arguments

16. Applicant's arguments with respect to claims 4 and 8-31 have been considered but are most in view of the new ground(s) of rejection.

17. Applicant's arguments with respect to Claim 3 filed February 2, 2006 have been fully considered but they are not persuasive.

Applicant's main point of contention with regards to the examiner's rejection of Claim 3 is the use of the Valdespino reference, in particular, applicant contends that Valdespino does not disclose that the air bag is housed within the housing assembly and is secured at one end to a piston located within the housing assembly and is secured at another end to an upper plate or end cap of the housing assembly. The examiner respectfully disagrees.

While applicant is correct that Valdespino is silent as to the specifics of the air bag 46 and its securement to end cap 43 and piston 50, the examiner maintains that inherently the bladder would have to be secured to these components. In order for the air bladder 46 to properly function, it would have to be adequately secured and maintained between cap 43 and 50 and thus, given the scope of applicant's claim language, since bladder 46 contacts cap 43 and piston 50, it is readable as being secured to these components. Applicant's comments with respect to Figure 9 of the Valdespino reference are unfounded as Figure 9 is a separate embodiment of the invention not relied upon by the examiner in her rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

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combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill in the art would recognize the benefits of constructing an air bag and shock absorber one piece structure that would allow for a reduction in cost and a simplier overall design. A motorcycle frame has a small and limited amount of space and so one of ordinary skill in the art, knowing these design and space constraints, would recognize the need for a more compact and simplier shock absorber design.

It is for these reasons that the rejection for Claim 3 has been maintained.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Warmuth II, Geno et al., U.S. Patent Nos. 5,752,692 and 5,918,863 both to Crabtree et al, and Eichhorn et al all disclose shock absorber assemblies similar to applicant's.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Mondays 5:30 AM -4 PM and Tuesdays 5 AM -11 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pam Rodriguez Primary Examiner

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